



## Gulf of Mexico Harmful Algal Bloom Bulletin

Region: Texas

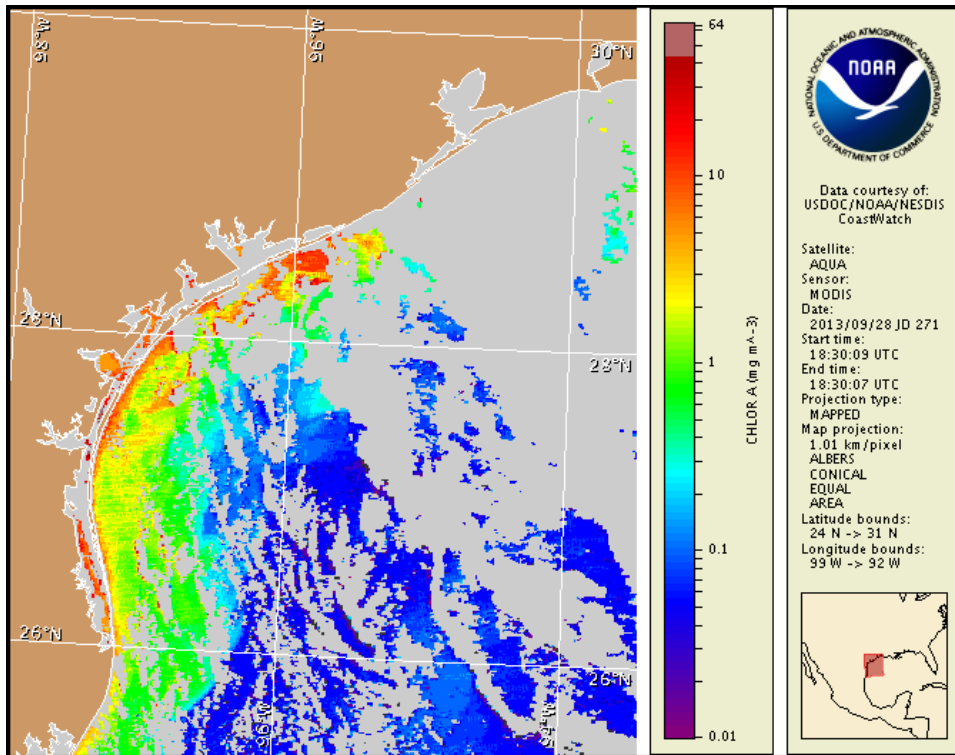
Monday, 30 September 2013

NOAA National Ocean Service

NOAA Satellite and Information Service

NOAA National Weather Service

Last bulletin: Thursday, September 26, 2013



Satellite chlorophyll image with possible *K. brevis* HAB areas shown by red polygon(s), when applicable. Points represent cell concentration sampling data from September 20 to 27: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Texas Parks and Wildlife Department. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

[http://tidesandcurrents.noaa.gov/hab/habfs\\_bulletin\\_guide.pdf](http://tidesandcurrents.noaa.gov/hab/habfs_bulletin_guide.pdf)

Detailed sample information can be obtained through the Texas Parks and Wildlife Department at:

<http://www.tpwd.state.tx.us/landwater/water/envconcerns/hab/redtide/status.phtml>

To see previous bulletins and forecasts for other Harmful Algal Bloom Bulletin regions, visit the NOAA Harmful Algal Bloom Operational Forecast System bulletin archive:

<http://tidesandcurrents.noaa.gov/hab/bulletins.html>

## Conditions Report

Not present to very low concentrations of *Karenia brevis* (commonly known as Texas red tide) are present along the coast of Texas. *K. brevis* concentrations are patchy in nature and levels of respiratory irritation will vary locally based upon nearby bloom concentrations, ocean currents, and wind speed and direction. The highest level of potential respiratory irritation forecast for Monday, September 30 to Thursday, October 3 is listed below:

**Region:** Forecast (Duration)

**Port Aransas/Mustang Island to Padre Island National Seashore region:** Very Low (M-Th)

**All Other Texas regions:** None expected (M-Th)

Check [http://tidesandcurrents.noaa.gov/hab/beach\\_conditions.html](http://tidesandcurrents.noaa.gov/hab/beach_conditions.html) for recent, local observations. Health information, from the Texas Department of State Health Services and other agencies, is available at [http://tidesandcurrents.noaa.gov/hab/hab\\_health\\_info.html](http://tidesandcurrents.noaa.gov/hab/hab_health_info.html). No reports of respiratory irritation or dead fish have been received over the past few days.

There are currently patches of a bloom of the algae *Aureoumbra lagunensis* in the upper Laguna Madre region. This algae species does not produce the respiratory irritation associated with the Texas red tide caused by *Karenia brevis*, but it may cause discolored water and fish kills.

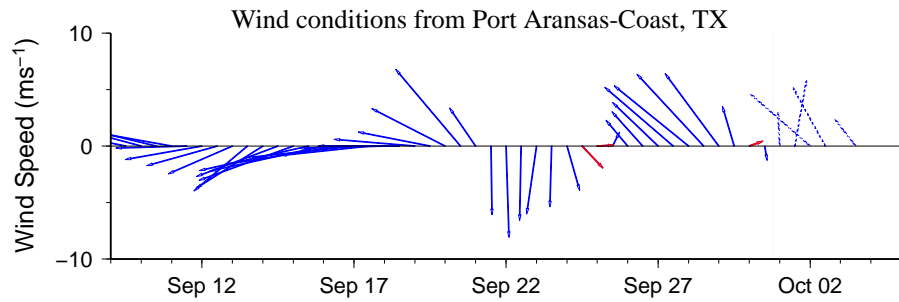
## Analysis

No new samples have been received from the Galveston Island, Galveston Bay, and Bolivar Peninsula regions since September 19, when samples indicated that *K. brevis* concentrations were 'not present' (TPWD). Texas A&M University's Imaging Flow Cytobot continues to indicate *K. brevis* concentrations ranging between 'not present' and 'very low a' at Port Aransas (TAMU, TPWD; 9/30). No new samples have been received from the PINS region since September 18, when samples collected indicated that *K. brevis* concentrations ranged between 'not present' and 'very low b' (TPWD). No impacts have been reported from anywhere along the Texas coast over the last few days (TPWD; 9/27-30).

Recent MODIS Aqua imagery (9/28, shown left) is partially obscured by clouds along- and offshore from the Sabine Pass region to Port Aransas, limiting analysis. Elevated chlorophyll (2 to 10 µg/L) is visible in patches along- and offshore from the Matagorda Peninsula region to the Rio Grande, with patches of high to very high chlorophyll (10 to >20 µg/L) visible along- and offshore from the Matagorda Peninsula region to Port Aransas. Elevated chlorophyll is most likely not indicative of the presence of *K. brevis* and is probably due to the resuspension of benthic chlorophyll and sediments along the coast.

Forecast models based on predicted near-surface currents indicate a maximum transport of *K. brevis* concentrations from coastal sample locations of 20 km south from the Port Aransas region from September 28 to October 3.

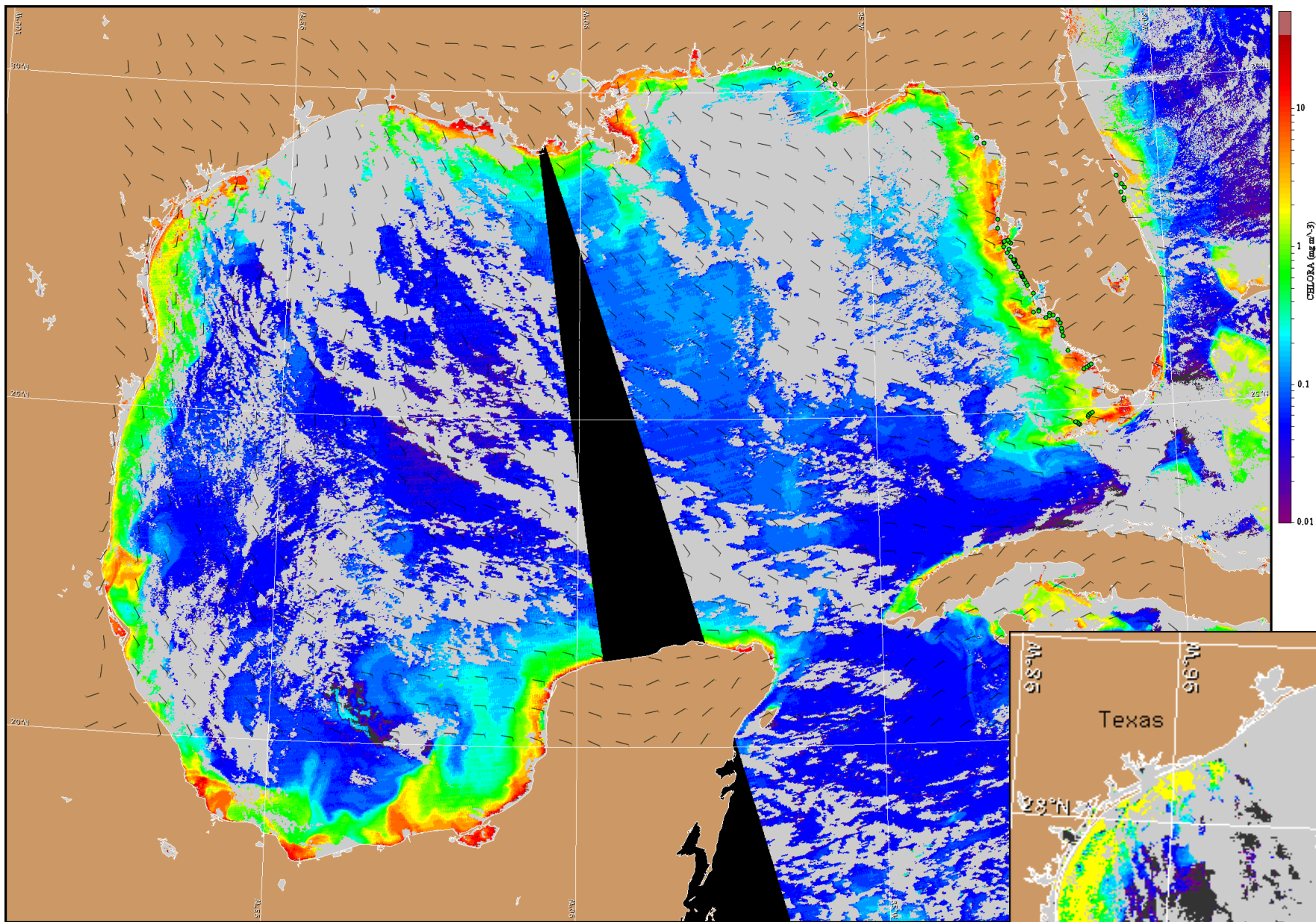
Derner, Urizar



Wind speed and direction are averaged over 12 hours from buoy measurements. Length of line indicates speed; angle indicates direction. Red indicates that the wind direction favors upwelling near the coast. Values to the left of the dotted vertical line are measured values; values to the right are forecasts. Wind observation and forecast data provided by NOAA's National Weather Service (NWS).

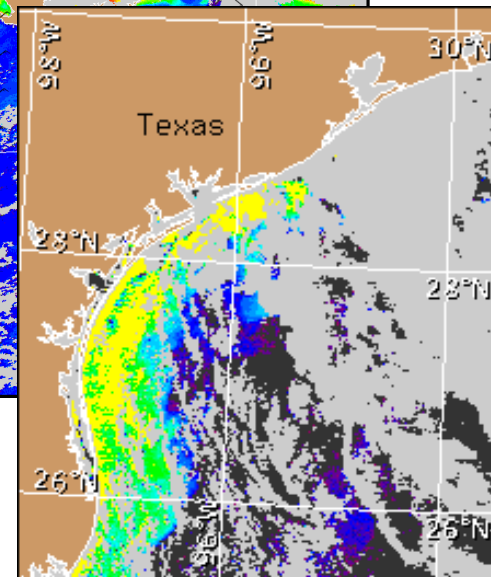
## Wind Analysis

**Port Aransas:** North winds (5kn, 3m/s) today shifting east in the afternoon. South winds (5-10kn, 3-5m/s) tonight through Tuesday shifting southeast (5-15kn, 3-8m/s) Tuesday night through Thursday.



Satellite chlorophyll image and forecast winds for October 1, 2013 12Z with points representing cell concentration sampling data from September 20 to 27: red (high), orange (medium), yellow (low b), brown (low a), blue (very low b), purple (very low a), pink (present), and green (not present). Cell count data are provided by Texas Parks and Wildlife Department. For a list of sample providers and a key to the cell concentration categories, please see the HAB-OFS bulletin guide:

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Verified and suspected HAB areas shown in red. Other areas of high chlorophyll concentration shown in yellow (see p. 1 analysis for interpretation).